The Files: Contract No: 689, T.O. 1 30 September 1961

25X1A9a

[redacted]

Trip Report
[redacted]

25X1A5a1

1. Project Description:

This task provides for the fabrication of two prototype page encryption devices utilizing the [redacted]

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2. Contractual Information:

a. Initial Cost: $142,841.00
b. Initiation Date: June 1961
c. Completion Date: 20 June 1962
d. Deliverable Items: 2 prototype Page encryption devices

3. Date of Meeting: 27 September 1961

4. Place of Meeting: Campbell, California

5. Persons Attending:

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Agency	Non-Agency
[redacted]	[redacted]

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6. Contractor's Performance:

a. On Schedule and Expected to Remain So: Yes
b. Within Obligated Funds and Expected to Remain So: Yes
c. Satisfactory Technical Progress: Yes

7. Project Status:

1. The contractor has nearly completed construction of a secure area in which page encryption equipment can be built and tested. This area will be adequate for visual and accoustic protection.

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2. A wooden mock-up of the encryption equipment has been completed and has served as a vehicle for determining encipherment rates which may be obtainable with the ultimate equipment. Although the present plans are still based on the use of black light ultraviolet tubes, the contractor is continuing investigation of other types of light sources which may serve as more efficient suppliers of ultraviolet energy. Among these sources considered are Xenon bulbs and iron-impregnated carbon arcs.

3. The heat development source used in the laboratory equipment is considered unsatisfactory by [redacted] He feels that the hot plate principle is inherently inadequate because of the air bubbles which unavoidably form between the film and the flat plates. These bubbles, or air pockets, tend to cause uneven development and wrinkles. The contractor is now making an experimental developing device in which the film will be guided between two heated coils of Calrod. The developing heat will all be radiant in nature, assuring uniform development over the entire surface of the page. 25X1A5a1

4. During the early laboratory demonstrations of the [redacted] encipherment technique, the sandwich constructions were held together by strips of scotch tape with adhesive on both sides. This has been unsatisfactory because of the problem of separating the sheets and resultant film stretching. The contractor has found that touching a hot wire to the edges of the mylar halfax sheets effectively welds them together, resulting in a good secure bond which will withstand handling, but which will separate easily when desired. 25X1A5a1

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